

**NOTE**

**RICHNESS OF MAMMALIAN SPECIES IN THE HIGHER ELEVATIONS OF NEORA VALLEY NATIONAL PARK**

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The Neora Valley National Park is in the northeastern part of Kalimpong subdivision of Darjeeling district, West Bengal. It was declared as a National Park in 1986. The luxuriant faunistic and floristic diversity in this region is due to climatic variation, heavy rainfall and geographical contiguity with the biologically rich surroundings. The National Park was previously surveyed in 1979 by the Forest Development Corporation (F.D.C.), West Bengal, along its eastern ridges. In 1981 the FDC conducted survey jointly with the members of the Zoological Survey of India (ZSI) and Botanical Survey of India (BSI). In 1982 members of ZSI, Department of Botany, University of Calcutta jointly with Kalimpong Forest Division and others, explored the western ridges. Since no recent report is available on the mammalian fauna frequenting the higher altitudes of the National Park, a survey was conducted by the University of North Bengal, Department of Zoology in collaboration with the Department of Forests, Government of West Bengal, and with camping assistance of an N.G.O. namely NESPON at initial stage, for the first time to explore the fauna of the Park in detail. The upper reaches and interior of the National Park was visited on various seasons that included summer (April, May, June), and early winter (October) of 1994-1996.

The Neora Valley National Park lies between 88° 45' E to 88° 50' E longitude and 26° 52' 3" N to 27° 7' 35" N latitude. It is a compact patch of 8,800 hectares. Altitudinal range varies from 183 m. to 3,155 m. The Neora river flows across the valley forming deep gorges at places, flanked by steep cliffs leading to high ridges. Numerous streams and rivulets originate from both sides of the "V" shaped valley. Primarily the park is subdivided into four broad regions namely Rechila Beat, Thosum Beat, East Nar Beat, and West Nar Beat. In the expeditions conducted by the party, the upper heights of the National Park that extended through the Rechila Beat and part of Thosum Beat were covered.

A checklist of 32 species of mammals belonging to 16 families along with their habitat type, distribution and abundance is prepared for the first time and presented based on field observations and reports. It is important to mention that out of 32 mammalian species, 9 are in Schedule I of Indian Wildlife (Protection) Act, 1972. This figure when compared to the total mammalian species of India (410) (Nameer, in press) and threatened species (118) (Molur, et al., 1998) represent about 7.8% and 7.63% respectively.

Percentage analysis shows that out of all the orders maximum species representation is that of Carnivora, followed by Rodentia and then Artiodactyla. More than 17% representation of the total mammalian species (diversity) of the West Bengal were found in the upper

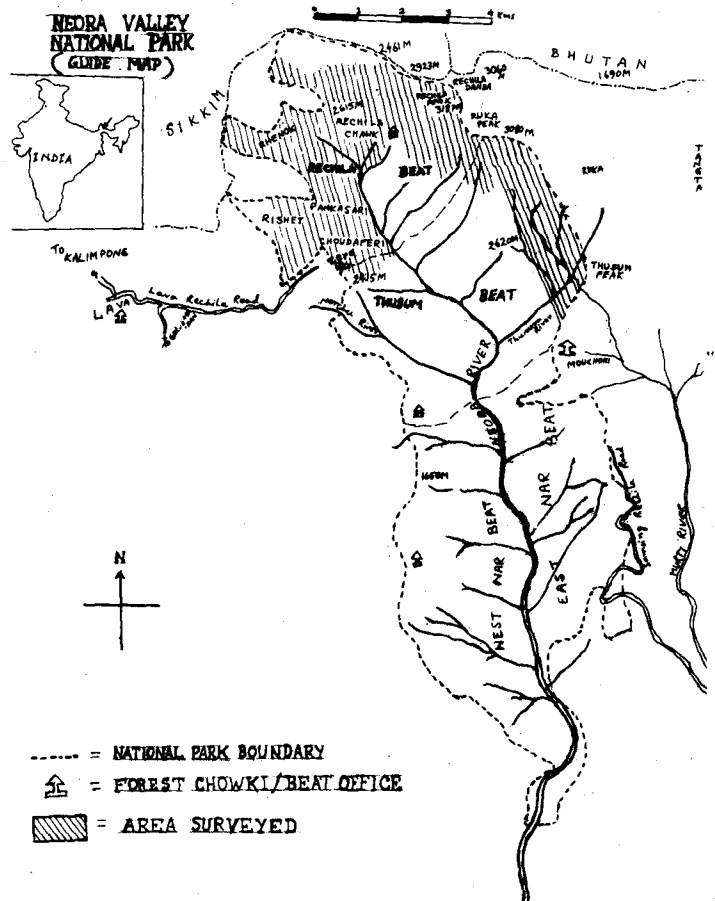
reaches of the Neora Valley National Park (Tables 1 and 2).

The abundance of animals listed from earlier reports have not been estimated in table 2. The cast of the footprints recorded for the three lesser cats i.e., Fishing Cat, Leopard Cat and Jungle Cat could be compared based on their size and shape. While the pugmarks of Fishing Cat were bigger and showed the mark of claws, the latter two could be distinguished based on the orientation of their toes and shape of the pad. The footprints of the Jungle Cat was recorded after sighting the animal. The footprints of Leopard Cat was matched with known references. Very recently the occurrence of population of tiger, *Panthera tigris* (Linnaeus) was recorded by the forest department and some NGOs (personal communication).

Views and opinions of scientists of ZSI and some other experts on lesser cat are thankfully acknowledged.

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**Table 1. A comparative account of the number of species of mammals in West Bengal and upper reaches of Neora Valley**

Order	# species in West Bengal	# species and their % in Neora Valley	Neora Valley speices% of West Bengal
Carnivora	37	17 (53.1%)	45.9
Rodentia	48	07 (21.9%)	14.58
Artiodactyla	13	05 (15.6%)	38.46
Chiroptera	60	02 (6.3%)	3.33
Insectivora	13	01 (3.1%)	7.69
<b>Total</b>	<b>188</b>	<b>32 (100%)</b>	<b>17.02</b>

**Checklist of Mammals of Neora valley National Park**

Common/ Local Name	Scientific Name	WLAct Status	Area	Habitat	Evidence	Abundance
<b>Order: Carnivora</b>						
<b>Family: Felidae</b>						
Leopard	<i>Panthera pardus</i> (Linnaeus, 1758)	Sch. I	Throughout National Park	Deep Forest	Foot print; Sighted	2
Tiger	<i>Panthera tigris</i> (Linnaeus, 1758)	Sch. I	East Nar, West Nar, Thusm	Deep Forest	Reported	--
Fishing cat	<i>Prionailurus viverrinus</i> (Bennett, 1833)	Sch. I	Alubari Joributi	In or near heavy Jungle; In scrub; Grass swamps	Foot print	5
Leopard cat	<i>Prionailurus bengalensis</i> (Kerr, 1792)	Sch. I	Joributi	Nocturnal, seldom seen; only foot print collected	Foot print	4
Jungle cat	<i>Felis chaus</i> Schreber, 1777	Sch. II	Rechila chawk; Joributi	Drier and Open part of jungle nearer to grassland, scrub jungle.	Sighted; Footprint	3
Clouded leopard	<i>Neofelis nebulosa</i> (Griffith, 1821)	Sch. I	Joributi forest and up	Dense forest; arboreal, Nocturnal	Reported	--
Marbled cat	<i>Pardofelis marmorata</i> (Martin, 1837)	Sch. I	Joributi forest and up	Arboreal; Scotophilic	Reported	--
<b>Family: Canidae</b>						
Indian wild dog	<i>Cuon alpinus</i> (Pallas, 1811)		Rechila chawk area	Deep forest; Occasionally sighted on less dense forest	Sighted; Call heard; Reported	4
Red fox	<i>Vulpes vulpes</i> (Linnaeus, 1758)	Sch. II	Uniform distribution	Scotophilic	Reported	--
Jackal	<i>Canis aureus</i> Linnaeus, 1758	Sch. II	Uniform distribution	Scotophilic	Reported	--
<b>Family: Viverridae</b>						
Himalayan Palm Civet	<i>Paguma larvata</i> (Hamilton-Smith, 1827)	Sch. II	Rechila and surrounding	Nocturnal, arboreal	Reported	3
Toddy cat	<i>Paradoxurus hermaphroditus</i> (Pallas, 1777)	Sch. II	Rechila and surrounding	Scotophelic, arboreal	Reported	2
<b>Family: Ursidae</b>						
Himalayan Black bear	<i>Ursus thibetanus</i> G. (Baron) Cuvier 1823	Sch. II	Throughout National Park	Dense forest dominated by bamboo	Sighted; Footprint	2
<b>Family: Ailuropodidae</b>						
Red Panda/ Cat bear	<i>Ailurus fulgens</i> F. G. Cuvier	Sch. I	Pankasari; Rechila	Dense forest dominated by bamboo	Reported	--

Common/ Local Name	Scientific Name	WLAAct Status	Area	Habitat	Evidence	Abundance
Family: Mustelidae Beach Marten	<i>Martes foina</i> (Exleben, 1777)		Joributi; Rechila	Forest and on the barren heights above the tree-line; Rocky parts of hill forest	Sighted	2
Yellow Throated Marten	<i>Martes flavigula</i> (Boddaert, 1758)		Joributi and surrounding; Rechila	Forest area; Higher hill ranges	Sighted	2
Siberian Weasel	<i>Mustela strigidorsa</i> Pallas, 1773		Upper Rechila chawk area	Forest area; scrub jungle	Sighted	5
Order: Artiodactyla Family: Bovidae Himalayan Tahr	<i>Hemitragus jemlahicus</i> (H. Smith, 1826)	Sch. I	Rechila and surrounding; Jorpokhri; Triangular point	Towering cliffs, rocks, dense scrub, forest	Foot print; Faecal pellet evidenced; Reported	3
Goral	<i>Naemorhaedus goral</i> (Hardwicke, 1825)	Sch. III	North-Eastern range of Rechila chawk	Grassy hill-sides; Rocky ground of forest	Reported	--
Gaur	<i>Bos gaurus</i> (Smith, 1827)	Sch. I	Thusum seldom seen	Grassy hill-sides,	Reported	4
Family: Cervidae Barking Deer	<i>Muntiacus muntjak</i> (Zimmermann, 1780)		Throughout National Park	Thickly wooded hills; come out to graze in the outskirts of forest	Sighted; Foot print; Call heard	1
Family: Suidae Indian Wild Boar	<i>Sus scrofa</i> Linnaeus, 1758		Throughout National Park	Grass or scanty bush jungle	Sighted; Foot print	1
Order: Rodentia Family: Sciuridae Particoloured Flying Squirrel	<i>Hylopetes alboniger</i> (Hodgson, 1836)	Sch. II	Rhenok	Purely arboreal	Sighted; Reprinted	5
Hoarybellied Himalayan (Irrawady) Squirrel	<i>Callosciurus pygerythrus</i> (Geoffroy St. Hilaire, 1831)		Throughout National Park	Diurnal, arboreal	Sighted	2
Indian Giant Squirrel	<i>Ratufa bicolor gigantea</i> (Sparmann, 1778)	Sch. II	Joributi	Scotophilic, arboreal	Sighted	5
Orange Bellied Squirrel	<i>Dermomys lokriah</i> (Hodgson, 1863)		Damdama Danda Thusum; Rechila	Arboreal, seldom seen	Sighted	3
Family: Hystricidae Chinese Porcupine	<i>Hystrix brachyura</i> Linnaeus, 1758	Sch. II	Alubari area	Moist-rocky hill forest	Sighted; Spine collected	5
Family: Muridae Bush Rat	<i>Mus pahari</i> Thomas, 1916		Thusum; Rechila sighted at dusk	Nocturnal, occasionally	Sighted and collected	3
Family: Microtinae Sikkim Vole	<i>Microtus sikimensis</i> (Hodgson, 1849)		Rechila rarely surface	Dusk time; Fossoreal,	Sighted	5
Order: Insectivora Family: Soricidae Black Ground Shrew	<i>Soriculus nigrescens</i> (Gray, 1842)		Joributi area	Nocturnal	Sighted and collected	5
Order: Chiroptera Family: Rhinolophidae Great Eastern Horseshoe Bat	<i>Rhinolophus luctus</i> Temminck, 1835		Rechila chawk	Nocturnal (early evening)	Sighted	5
Family: Vespertilionidae Serotine	<i>Eptesicus serotinus</i> (Schreber, 1774)		Rechila chawk	Nocturnal (late evening)	Sighted	2

1 = Abundant; 2 = Common; 3 = Regular; 4 = Uncommon; 5 = Rare; -- = Not known